

WHAT IS CLAIMED IS

1. A database system for storing data in a database, the database comprising a structure of linked data nodes corresponding to a natural hierarchy of the data, the
5 nodes being of two types: tag nodes, forming the linked structure of the database, and audit nodes which are children of tag nodes, data at a particular level of the natural hierarchy being entered into the database being stored in audit nodes formed on entry of said data as children to the tag node at the point in the structure corresponding to said level, the audit nodes being undeletable and timestamped, changes to the stored
10 data being effected by the addition of new audit nodes, whereby the audit nodes form an audit trail for the database.
2. A database system according to claim 1 wherein a request to return the value of current data stored in the database is serviced by a tag node extracting the
15 value of its most recently added child audit node.
3. A database system according to claim 1 wherein a request to return the value of data as recorded at a given time in the past is serviced by a tag node extracting the value from the most recently added child audit node before said time.
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4. A database system according to claim 1 wherein the tag nodes store secondary data, the secondary data being data which has been automatically deduced from the data in the audit nodes.
- 25 5. A database system according to claim 4 wherein the secondary data at a particular tag node comprises summary data summarising the content of audit nodes below said particular tag node in the natural hierarchy.
- 30 6. A database system according to claim 1 comprising a replication service for replicating data by copying nodes.

7. A database system according to claim 6 wherein the replication is achieved by first copying database structure as tag nodes and second copying data as audit nodes.

5 8. A database system according to claim 7 wherein the replication is selective by only copying nodes below given points in the hierarchy.

9. A database system according to claim 5 wherein said replication service occurs asynchronously of data input to the database.

10 10. A database system according to claim 1 wherein the audit nodes comprise pages of data digitally signed by the user entering the data.

15 11. A database system according to claim 1 wherein each node has a unique identification code.

12. A database system according to claim 11 further comprising a bar code generator for generating a bar code encoding said unique identification code whereby physical items may be associated with a node by application thereto of said generated
20 bar code.

* 13. A database system according to claim 11 wherein said unique identification code comprises codes representing a workstation, a sequence code for that workstation and a counter for that sequence.

25 14. A database system according to claim 13 wherein said unique identification code further comprises a code representing a user.

30 15. A database system according to claim 1 comprising a plurality of workstations across which the database is distributed, said providing for data input to

said database, each of said workstations being usable in isolation to add data to the database.

16. A database system according to claim 1 wherein graphical user interfaces
5 are provided for guiding entry of data to the database, the configuration of said
graphical user interfaces being controlled by configuration data stored in audit nodes
distributed across said database.
17. A database system according to claim 16 wherein the configuration of
10 said graphical user interfaces may be changed by replication of new audit nodes
across the database.
18. A database system according to claim 16 wherein the configuration of a
graphical user interface for guiding data entry at one level in the hierarchy is
15 controlled by configuration data stored in an audit node which is a child of a tag node
at a higher level in the hierarchy.